



# City of Salina

## 2007 Water Action Plan

April 9, 2007



Due to drought conditions in central and western Kansas, the flow in the Smoky Hill River and water level at Kanopolis Lake have been at all time lows. Typically, approximately 60% of the City's water is supplied from the Smoky Hill River and the remaining 40% from groundwater wells. The maximum water treatment capacity is 20 million gallons per day (mgd), based on a maximum of 10 mgd each from the Smoky Hill River and the groundwater wells. The drought conditions, low flows in the river and low water levels at Kanopolis Lake triggered the following sequence of water restriction events:

- Water Watch – July 21, 2006 to July 25, 2006
- Water Emergency – July 26, 2006 to July 30, 2006
- Water Warning – July 31, 2006 to April 1, 2007

Kanopolis Lake has been below normal operating level (Elev. 1463) since August 5, 2005. On December 14, 2006, the lake level dropped to Elev. 1455.56, the lowest level in more than 18 years. In less than 4 months, the lake has gained nearly 8 feet and is above the normal operating level of Elev. 1463.

Due to the low levels of Kanopolis Lake, the U.S. Army Corps of Engineers has been releasing the minimum flow required into the Smoky Hill River. During hot summer months when the irrigation season and City demand are at peaks, it has been proven that the minimum release does not provide sufficient water supply to meet the needs of the irrigators and the City.

The groundwater well field consists of 15 wells within the Smoky Hill River alluvial aquifer. The wells were installed between the years of 1929 and 1957 and range from 65 to 80 feet deep. Currently the groundwater level is approximately 10 to 15 feet below the original groundwater level. In 1989, the groundwater level was slightly lower than today. The well field continues to provide a reliable raw water supply for the City. Utilizing a minimum of 60% river water and limiting the use of wells, aids in maintaining groundwater levels and also slows the movement of contaminated groundwater towards the well field.

With these conditions in mind, City Staff has been planning for low groundwater levels, low river flows, low lake levels and groundwater contamination this year and into the future.

The following Water Action Plan items were authorized by the City Commission on April 9, 2007. These action items are currently under review and evaluation by City Staff and will be presented to the City Commission for their review, comment and approval of implementation.

**1: Authorize Staff to precede working on Water Action Plan – Priority 1**

- A.** Water Restrictions and Enforcement Plan
- B.** Well Field Evaluation Study
- C.** Water Conservation Tier Rates
- D.** Review existing Water Rate Structure
- E.** Xeriscaping Requirements
- F.** Landscape Requirements
- G.** Update Municipal Water Conservation Plan – Drought/Emergency Contingency
- H.** Raw Water Supply Study – Request for Qualifications (Ongoing)
- I.** Manage Groundwater Contamination
  - Schilling Air Force Base
  - Downtown Well Field

**2: Authorize a Water Warning through December 31, 2007**

**3: Authorize Water Warning Restrictions as follows:**

- A.** Watering of grass allowed twice per week based upon three (3) geographical zones in Salina
  - North Zone: North Salina to Crawford – Tuesday and Friday
  - Middle Zone: Crawford to Magnolia – Wednesday and Saturday
  - South Zone: Magnolia to South Salina – Thursday and Sunday
  - No grass watering permitted on Monday
  - No watering of grass between 10:00 A.M. and 6:00 P.M.
- B.** Flower, plantings and/or vegetable gardens:  
No watering between 10:00 A.M. and 6:00 P.M.
- C.** Commercial/Industrial owners will be allowed to preserve vegetation required by the City's landscaping ordinance
- D.** Filling of pools is allowed once per week
- E.** Home outdoor vehicle washing is allowed only once per week on Saturdays only
- F.** Limit waste of water. This includes, but is not limited to permitting water to escape down a street, ditch or other surface drain or failure to repair a controllable leak of water due to defective plumbing.

**4: Provide News Releases to the local media on the 1<sup>st</sup> day of each month, beginning May 1, 2007 and continuing until December 1, 2007**

**5: Authorize the City Manager to amend/rescind or reinstate the water restrictions as necessary through December 31, 2007**

**6: Authorize Staff to precede working on the Water Action Plan – Priority 2 items for future City Commission review, comment and approval.**

- A.** Inventory Private Domestic Wells within City Limits
- B.** Select Consultant/Complete Raw Water Supply Study
- C.** Low-flow Showers/Toilets and Etc. (Review – need to regulate)
- D.** Revise Long Term Water Conservation Plan

**7: Authorize Staff to continue current Watering Exemption Policy, which allowed dampening of seed bed daily as necessary to accomplish seed germination.**

**8: Authorize Staff to precede with any other additional Water Action Plan that the City Commission deems necessary.**